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Remarks:

The Applicant would like to thank the Examiner for the courtesy of an interview, held on December 12, 2006. Claims 1-31 are pending in the present application. By this Amendment, claims 21-23 are canceled. Claims 1-20, 24-27 and 29-31 are amended. Support for the amendment to claims 1 and 9 that recites, "with the proviso that R^1 is not a heterocyclic base" is ... The remainder of the amendments to the claims are made to correct grammatical errors and conform the claims to US practice. No new matter is added to the claims by these amendments. Accordingly, entry of the amendments to the claims is respectfully requested.

Claim objections:

Claims 4-8 and 12-31 were objected to as being in improper multiple dependent form. The claims have been amended to remove all multiple dependencies. Therefore, withdrawal of the objections to claims 4-8 and 12-31 is respectfully requested.

Claim Rejections under 35 U.S.C. 103(a):

Claims 1-3 and 9-11 have been rejected under 35 U.S.C. 103(a) as obvious over De Clerq et al. (US Patent No. 5,607,922) and Alexander et al. (US Patent No. 5,659,023) in view of Daluge et al. (WO 9521161 A1). The rejections are respectfully traversed.

De Clerq et al. is cited for teaching 1,5-anhydrohexitol nucleoside analogues having a base at the C2 position of the hexitol ring. The Applicant agrees that De Clerq et al. does not teach the $-NH-[X]_n-R^1$ moiety recited in the rejected claims, nor does it teach the use of such analogues as monomeric units of a polymeric compound. Alexander et al. is cited as teaching nucleotide analogues containing a 1.5- anhydrohexitol and a modified purine or pyrimidine nucleobase, that are useful for labeling oligonucleotide probes. DaLuge et al. is cited as teaching particular pyrimidine derivatives, wherein the compounds may be linked via an amine to a hexitol or cyclopentene ring. However, each of the references teaches compounds having a nucleobase coupled to the sugar or cycloalkenyl moiety, and none of the references teach or suggest a compound lacking a nucleobase.

In the interview held on Dec. 12, 2006, the examiner pointed out that the nucleobase linked to a hexitol through an amine group, as taught by Daluge et al., could in principle function as a protecting group in the R^1 position of the $-NH-[X]_n-R^1$ moiety recited in claims 1 and 9, if $n = 0$. However, the term "protecting group" is defined in the

specification as a group that protects a functional group from reacting in an undesired way, and further that can be removed without destroying the biological activity of the molecule (see paragraph 0036). Examples given of compounds that are possible protecting groups for exocyclic amines are acyl groups (e.g., a benzoyl, phenoxyacetyl, acetyl or formyl group) and the amidine protecting groups (e.g., N,N-dialkylformamidines) (para. 0036). Nucleobases cannot be removed from the compounds taught in the cited references without destroying the biological activity of those molecules, and nucleobases are not represented in the classes of compounds taught in the present specification as examples of exocyclic amine protecting groups. Furthermore, protecting groups are typically inert, unable to react significantly with other species other than those used to remove the protecting group from the molecule. In contrast, nucleobases have multiple different potential reactive sites, which could potentially interfere with subsequent chemical steps, or cause undesired reactions among components in a reaction mixture. Accordingly, one of skill in the art would not understand a nucleobase in the R^1 position of the $-NH-[X]_n-R^1$ moiety recited in claims 1 and 9 to be a functional protecting group.

Nonetheless, to remove all doubt, Applicant has amended the independent claims 1 and 9 to recite the limitation "with the proviso that R^1 is not a heterocyclic base,". This limitation was proposed by the Applicant's representative in the Dec. 12, 2006 conference to overcome the prior art and advance prosecution of the application, and does not represent acquiescence by the Applicant to the propriety of the rejection. Accordingly, reconsideration and withdrawal of the rejections of claims 1-3 and 9-11 have been rejected under 35 U.S.C. 103(a) are respectfully requested.

Conclusion:

In view of the above, Applicants believe all claims now pending in this Application are in condition for allowance. Applicants hereby request a one-month extension of time for responding to the Office Action. The Commissioner is hereby authorized to charge the extension of time fee (large entity) under 37 CFR 1.17 to Account No. 50-0812. The Commissioner is further authorized to charge any fee deficiency, or credit any overpayment, to Deposit Account No. 50-0812.

If the Examiner believes a telephone conference would expedite prosecution of this application, she may telephone the undersigned directly at 510-814-2891.

Respectfully submitted,

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